

Title (en)

PROCESS AND SYSTEM FOR TREATING WATER

Title (de)

VERFAHREN UND ANLAGE ZUR AUFBEREITUNG VON WASSER

Title (fr)

PROCÉDÉ ET INSTALLATION DE TRAITEMENT DE L'EAU

Publication

EP 2598446 A1 20130605 (DE)

Application

EP 11741427 A 20110722

Priority

- DE 102010032722 A 20100726
- EP 2011062628 W 20110722

Abstract (en)

[origin: WO2012013593A1] A process for treating water, in particular for producing ultrapure water, is described, in which a water stream is purified in a reverse osmosis unit, wherein the water stream is subjected to a pretreatment having the steps (1) partial exchange of the cations present in the water stream for H⁺ ions and (2) substantially complete exchange of the anions present in the water stream against OH⁻ ions, and the water stream obtained from the pretreatment is passed directly into the reverse osmosis unit. In addition, a system is described in which such a process may be carried out.

IPC 8 full level

C02F 1/44 (2006.01); **B01D 61/04** (2006.01); **C02F 1/42** (2006.01); **C02F 103/04** (2006.01)

CPC (source: EP US)

B01D 61/025 (2013.01 - EP US); **B01D 61/04** (2013.01 - EP US); **C02F 1/42** (2013.01 - EP US); **C02F 1/441** (2013.01 - EP US); **C02F 9/00** (2013.01 - US); **B01D 2311/04** (2013.01 - EP US); **B01D 2311/2623** (2013.01 - EP US); **C02F 1/66** (2013.01 - EP US); **C02F 5/00** (2013.01 - EP US); **C02F 2001/422** (2013.01 - EP US); **C02F 2001/425** (2013.01 - EP US); **C02F 2103/04** (2013.01 - EP US); **C02F 2301/043** (2013.01 - EP US)

Citation (search report)

See references of WO 2012013593A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

DE 102010032722 A1 20120126; EP 2598446 A1 20130605; EP 2598446 B1 20191204; JP 2013535322 A 20130912; JP 5951605 B2 20160713; US 2013118984 A1 20130516; US 8980095 B2 20150317; WO 2012013593 A1 20120202

DOCDB simple family (application)

DE 102010032722 A 20100726; EP 11741427 A 20110722; EP 2011062628 W 20110722; JP 2013521085 A 20110722; US 201113812215 A 20110722